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Uruguay in the context of the Universalization of the Internet

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Moderator (Raúl Echeberría): Good afternoon, everyone. How great to have all these prestigious colleagues on the panel, and thank you very much to everyone who has stayed until this hour. I think it's been very interesting. Sometimes things seem very simple and always work, but you have to put a little bit of effort into making sure everything aligns. There are protocols, good practices, and technology , but for everything to always work harmoniously, it's always necessary to put a little bit of effort into configuring and making sure everything is okay.

multilingual domains , about why it's important. We need to recognize that for Latinos, this is a problem that has fewer limits than for other cultures. The first time I went to Georgia on a work trip. It's a small country like ours, but not only do they have a language spoken only in Georgia, but they also have an alphabet used only in Georgia. So imagine that for those types of populations, those cultural groups, being able to use multilingual characters on the internet is the difference between preserving their culture online or not.

But then, and this is precisely what I was getting at, if we're talking about all this, it's because it's important to have an internet that stands out. One that reflects diversity and multiculturalism. Otherwise, it wouldn't make any sense. What would be the importance of having multilingual domains if it weren't important for preserving our cultures?

So I think that's where we're going. We're going to try to raise the level of abstraction. We're not going to go to slightly higher layers. We're going to move away from bits and bytes and PINE. Thank you for the courtesy of trying PINE. We're going to move away from email programs. And let's look at why we're doing this. Why does an organization like ICANN, so large, with so many resources around the world, dedicate so much to this? Why are so many stakeholders demanding this type of implementation on the Internet? There has to be a reason.

So we'll try to uncover a bit where that's going. So I think the question for the panel in general is that. A bit about what thoughts you have about why this is important. Why it's important for us to have an internet that reflects these cultural and linguistic diversity. And we could even expand a bit further and talk about other types of diversity.

So I'll go, since I'm going to invite you to speak in the order in which you're seated. I'll start with Mariela. Mariela is one of them—you introduce yourself—but I think she's a very important player in the national internet ecosystem, as she directs the University's central IT services. It's an institution that has had the responsibility of managing the .wii domain since its inception, but it's also a promoter of academic networks, of the national academic network. So, it's a pleasure to have you here with us.

Mariela de León (SeCIU - UDELAR): Well, thank you. It's also a pleasure for me to be here at this event. I also appreciate the invitation to Laura. And well, in this case, let's say, I represent the Central Information Technology Service of the University of the Republic, and we have a dual role, a dual role in SeCIUS . We're the

administrator of .wii , but we also have to manage the University's IT department. So, from that perspective, too.

And when we're in charge of managing .wii and we connect with other actors, other countries, other CCTLDs , as they're called, other country domain administrators in Latin America, the issue of internationalization is always present. First, for the Uruguayan community, being able to provide domains that have accents and the ñ, for Peñarol, for Ñandú, for Chajá, for those kinds of things. Well, being able to solve the local problem is a requirement.

But we're also in a context where we have to communicate and be able to resolve other domains in other countries, right? For example, Paraguay, which has its own Guaraní language and also Brazilian Portuguese. So, that's also a concern for domain management, being able to be present in this.

We're going slowly, but as for IDNs, I'm going to review the IDN inclusion numbers in other countries. Well, in Uruguay we have 106,000 .wii domains in total, and we have 534 with IDNs. It seems like a small amount. It's 0.49%, but I look at the rest of the Latin American countries and we're in the top three. So, we're not doing so badly. It's small, but hey, we're still worried about that.

We're still concerned about including other things. We could also include email internationalization in our registration system. While we have IDNs, we don't allow internationalized email. And so, that's where we're going. I find Argentina's IDN policy interesting, for example, which included not only accented vowels but also Portuguese within its domains. And so, that's it. Uruguay, let's say, isn't doing badly, but we need to move forward.

And I think that's what it's for, to be able to provide solutions for researchers in Latin America and around the world as well. Now I speak as Cesiú , providing solutions for universities, where they have to communicate with researchers from all over the world, where they hold events where researchers from other parts of the world register, and we give them forms where they can only enter email addresses with ASCII encoding, or thesis repositories where they write theses with other researchers, and those researchers live in other languages or have other email accounts, and we don't allow them to register their theses in our repositories. So, well, that's the problem and that's why this topic is so important, and we want to be there.

Moderator (Raúl Echeberría): Thank you very much, Mariela. Yes, of course, one thinks about researchers, and even though we don't have as much need for multilingual domains and the use of these characters, yes, researchers working at universities in Asia are likely to use them, and if those aspects didn't work, it would be problematic.

Laureana . Laureana is a very special person. We're all special. But Laureana is a translator, a teacher. But in addition to being a translator and teacher, and a longtime member of the Uruguay chapter of ISOC, she's probably the person in the world who has done the most translations on internet-related topics. Right? So, she's been working hard for many organizations for a long time, translating content that sometimes requires translation, even for those of us who speak the same language, to understand it. But she has the challenge of translating it into different languages. So, it seems to me that with your experience, Laureana , the reflections you have on this topic are extremely relevant.

Laureana Pavón (University of Montevideo): Thank you, Raúl, for such a lovely presentation, and thank you, Laura, for inviting me. Well, perhaps I'm the least technically inclined person on this panel, and it seems to me that you bring a bit of the perspective of, "I'm a linguist, I'm a translator, but all translators are linguists." So, to understand why this whole technical challenge really is. Because it seems to me that this whole technical challenge goes hand in hand with or serves the linguistic aspect, right?

And I wanted to mention a few things, it seems to me, like two aspects. On the one hand , there's representativeness. And perspective. Linguistic and cultural preservation. And on the other hand, accessibility and inclusion, right? I think these two aspects are extremely important.

Among linguistic rights, one is the right to one's own name, for example. We all have the right to use our own name in any context. That's why it's so important. My last name is Pavón. Carlos's last name is Carlos Martínez. I'm a linguist. For all of those things, I need what we've talked about today. Let's say, all the technical aspects that determine whether one can exercise those linguistic rights.

On the other hand, technology and technical issues also shape language. Just like, for example, I'll give you an example. I'm from the old school where we used typewriters. Typewriters had a tremendously limited character set, and for many years we didn't use accents on capital letters. And why was that? Because the character set supported by a typewriter didn't support accents on capital letters.

Technology has changed; we no longer used typewriters, and now it seems the most normal thing in the world to use an accent mark on a capital letter. I think this technological change is a bit like the one we're facing now: being able to use language the way we're used to, or the way it should be.

And one thing they said here that's important, and that Nico reminded me of when he said it during the performance. How difficult it is for him, for example, to speak English to a Chinese audience. For all of us, one of the linguistic rights we have is the ability to express ourselves and create knowledge in our native language. How important it is to be able to do so with all the characters we need at our disposal to do so. That's one thing.

And on the other hand, there's also the issue of accessibility. Any reader. For example, for people with visual impairments. Without the accent marks, they won't read it the way it should be read, and then they'll have difficulty understanding it. It's not the same how you take it or how your mother-in-law's dilemma is. It's not the same as the issue. There are some examples that are even funny, but the issue of being able to display all the characters is also important for accessibility.

And let's not even talk about inclusion. Spanish, as they rightly said here, has very few characters that need to be internationalized. But there are other languages, even those from minority groups, that have many characters that should be included, so we can preserve their language and culture. Just like animal species, there are languages that are in danger of extinction. And having all these resources to preserve them digitally will help prevent the loss of all that cultural and linguistic wealth. Other groups, unlike us, who have very few problems expressing themselves, have many. I think that's a bit of a non-technical perspective on why this is important. A few things occurred to me that I could mention here.

Moderator (Raúl Echeberría): We'll come back to you later, Laureana. Because I'm also very intrigued by all of this. Your opinion on how it's affecting technological evolution. Whether you're in favor of preserving languages or against them. We'll come back to this later.

Our next panelist, Daniel Mordecki. Daniel Mordecki has been the director of the Agency for the Information and Knowledge Society (AGESIC) for two months. I think it's an extremely important position. Relevant precisely to the impact of public services. In accessibility. In the preservation of cultural characteristics. Daniel is a very successful professional with a long history. He has worked in the private sector. He has had his own consultancy. And as a consultant, I also understand that

one of the most important topics he worked on was accessibility. I think he's a spectacular guest for this conversation.

Daniel Mordecki (AGESIC): Thank you very much. I'm going to look at it from Uruguay to understand it. But it can be extrapolated to most countries. It depends on their level of evolution. But if you look at Uruguay in the period 2005, 2007, 2005, 2008, Uruguay set the digital policy for the next 20 years. Until now. Yes? Before that. The initiatives. The CEP. But Uruguay online. Infed 2000. And a number of others. They couldn't make it through a term in office. And they died there.

Actually. Funds were allocated. And they frayed. Sometimes, institutionally, they didn't unravel. But they were left without content. What the AGESIC foundation achieves. And one of its main virtues is looking 20 years ahead. I mean, you have to look 20 years ahead in technology. I mean, they establish the policy. That policy. It basically triumphed. Right? They sort of thought that policy through. They implemented it. They want a state policy more solid than 20 years of history. Four governments. Different parties. In government.

The point is that the culmination of that success is that today the world. At least in Uruguay. But I believe the world in general is digital. What does it mean that the world is digital? It means that what is substantial. What is relevant. The most important thing in society. It is digitalized. Of course, there is a physical reality. Which for the moment is not digitalizable . Right? But if you look... Well, the play is not digitalizable . Okay. The play. Everything else is digital.

How does a person who does not belong to the digital world do it? To participate in a play? To pay your bills. To interact with the bank. To study. For whatever. The world is digital. That doesn't mean that if you do Zoom ... No, double-click. Double-click. Windows 95. Okay. Double-click. If they work at Microsoft. Is there anyone from Microsoft? No. If they work at Microsoft. Double-click. But everyone else. We do Zoom . We do drill down . We watch. Double-click. Windows 95. Yes. It's very funny. There's a radio show there. It's called Double-click. It should be a program on the history of technology. But no. It 's supposed to be a current affairs program .

Sorry for the parenthesis. But yes . If you Zoom in . If you focus. Obviously. This isn't like everything is perfectly digitized. But if you think. That the iPhone. It's from 2007. That before. That the Android. It's from 2009. And what. The cellular revolution. I mean. The coverage. Of half of the citizens. With a smartphone. In Uruguay. It's 2011. 2012. They're talking. Of a historic transformation.

I mean, before. In 2005. The procedures. They were on paper. All of them. Now. The digital nouns. That doesn't mean. That we don't have. To do. What happens when the world is digital? Those of us who plan and develop public policies have to understand that every person who isn't able to participate meaningfully in the digital world is a class B citizen.

If the President wants Boric has just discarded his smartphone and traded it for a cell phone. Good for Boric . But it's not a problem of not being able to, but rather of not wanting to. But at the level of digital inclusion, every citizen left out by public policies, every citizen left out by public policies, becomes a Class B citizen.

And in this case, 80-20 doesn't work. There's no 80-20 here. Here, there's 80, 81, what I was saying is 82, 85, 99, 100. That has to be our goal. Technology, when it's born, is for technologists. As public institutions, we have the responsibility in this case to ensure that 100% of people in Uruguay—I understand this is a global policy. I'll put it in Uruguayan terms for comprehension—but that 100% of people have minimal barriers.

The use of technology involves quite a barrier. Incredible barriers. Every atom, every pixel you add leaves three people out. Every question you ask leaves 500 people out. Every procedure, in every procedure, every question there is, oh, leaves a percentage out.

If an organization asks citizens, instead of saying "username and password in Spanish," they are domains, it implies so much, it has so much added value that we can't say "username and password in Spanish." So, for us at GESIC, these initiatives and all initiatives along these lines that involve uncompromising inclusion, 100% of the population, the minimum possible barriers to digital use, a meaningful digital life, are not only welcome, but are part of the commitment we have to do.

Moderator (Raúl Echeberría): Excellent, Daniel, thank you very much. You've really given us material for the following questions. I really liked the 100% minimum barriers. I think it's completely true. I think everyone here agrees and supports those statements.

Fabricio. Fabricio Scrollini has led many civil society initiatives for years here in Uruguay, often working abroad. Sometimes we miss out on Fabricio's wisdom and experience here. One of his areas of work is open data and the use of data for decision-making in many areas of social issues. Fabricio, we would love to hear from you. The importance of data also means ensuring that data is available in

formats that are understandable and acceptable to everyone. We appreciate your thoughts.

Fabricio Scrollini (HOTOSM): Well, thank you very much to Laura and Raúl for inviting me to this panel with such distinguished colleagues. I don't know if there's much wisdom in what I'm about to say. I was a researcher a long time ago, working on what was the open data agenda in this country, particularly this somewhat crazy idea that data should be in interoperable formats so that anyone could use and reuse them under the conditions that open licenses allow.

It's an idea that actually stems largely from the founder or one of the creators of the web, Tim Berners-Lee. Although in his original idea, Berners-Lee envisioned databases connected across the world, this wasn't what ended up happening. In fact, the open data agenda ended up prevailing, to some extent, on a moral level, so to speak. It's a good thing that data is open, but it's not a good thing everywhere in the world. In other words, this wasn't something that was uniformly accepted globally.

And I would tell you, as we were having this conversation here today with my colleague, that traditionally those countries that are more democratic, or whose credentials are more democratic, have embraced the open data agenda most fervently, both in its normative aspects—which has to do with saying information should be free—and also in its technical aspects. The idea of having standards and metadata that allow that data to be free. This is said with a great simplification: not all data, not all areas are equal. I mean, no, this is how it is. To this day.

And there are even countries that, well, that also follow this agenda, that don't necessarily, let's say, have this equality between transparency and democracy, but it's generally an agenda of this style that is more popular today in some places than others in the world. Currently, in my role, I lead an organization called the OpenStreetMap Humanitarian Team . I don't know if any of you have heard of OpenStreetMap or have used OpenStreetMap . Well, great.

What we do, the original mission of my organization, was to map the homes of a billion unmapped people. The central objective was basically to include these people on the map, using the OpenStreetMap map as a basis . These people were basically in the most vulnerable areas of the planet, or the poorest areas of the planet, to put it bluntly, right? We're talking about large swathes of Africa, large swathes of Asia, also here in Latin America, naturally in parts of Brazil, Central America, Venezuela, and Colombia.

Access to being represented on a map is fundamental to accessing services, fundamental to accessing rights, fundamental to being seen. And also on your own terms. And this is where the fundamental detail of what you're discussing comes in. If the OpenStreetMap infrastructure doesn't allow for the representation of these people's places in their names, in their forms, in their perception, then by mapping them, we are actually renaming places that were not actually what those grassroots communities, those places, or those peoples had named for their own culture.

And this, to put it bluntly, is known as colonialism, right? And I don't say this as something inherently an explicit practice of all the actors who traditionally work in the world of the internet and in the world of data. We do it because we needed to map it, and we do it because sometimes we don't have the tools or the time to recognize these other communities that are there.

To the extent that there are no technical teams capable of considering inclusion by design, what basically ends up happening is that these places, these populations, these ways of seeing the world, which are clearly very different, are steamrollered. This is the belief that every self-respecting Uruguayan who goes to Central America, to the southern part of Mexico, thinks, well, everyone here will speak Spanish. Good luck to everyone. What they speak there is basically a version of Spanish that is fundamentally Mayan and is one of the Mayan dialects.

So, that kind of arrogance that comes from those of us who are, let's say, or belong to majority language groups, especially those whose first language is English or similar, is something that's complicated because it ultimately prevents us from seeing reality as it really is. In humanitarian situations, this has consequences. The consequences are generally fatal because no one is actually planning to recognize others in the contexts in which they should be recognized and consequently assisted.

To bring it down to very pragmatic things, so that it's not a discussion about, well, colonialism, inclusion, I don't know what, no, it's quite simple. And no one does it on purpose because, I don't know, you get up from here and you have to, I don't know, like in my case, getting my son home from school, I have to run around doing a lot of things, so I... And so life goes on without anyone often being aware of the practical implications of these technical decisions.

OpenStreetMap is a platform that has labels, and there are certainly huge discussions on OpenStreetMap. Maybe some of you are on the OpenStreetMap forums and have been looking, about why some places aren't recognized as such.

And maybe because there's a group of German men who created the labels for the first time, who don't like the fact that taquerias are called taquerias in Mexico. They're taquerias, you know. Oh, no, but we don't recognize them like that here.

And this also has a lot to do with the different visions that exist regarding the technical aspects of the Internet, which are often anchored in the Global North. And part of the discussion I'd like to bring here is the need to change that perspective, not as a matter of counterpoint or as an antagonistic issue, but as a genuine exercise in including others in the construction of a genuinely open Internet and not merely a facilitator of culture and technology, which is what the Internet facilitates in many cases.

So from that perspective, not as an antagonistic spirit, but rather as a critical reflection on the practices of those who build the Internet, I believe these types of initiatives, which basically provide the technical foundation for deploying a more open vision of the Internet, are substantial. It's something I greatly celebrate, that they come together to discuss and implement.

And well, it's also part of what the OpenStreetMap community needs to work on, because here I'm not pretending to be a snob and running away from the scene, but quite the contrary, telling you that OpenStreetMap isn't as inclusive as it should be. Even though this community is open, with a ton of contributors—in our case, there are more than 600,000 people contributing with us, many of them also in the South, many of them in the North—but it's still not as inclusive as it should be to map this planet and the most vulnerable populations.

Moderator (Raúl Echeberría): Thank you very much , Fabricio. It's striking that you brought the topic of multiculturalism and multilingualism into our lives. And he brought me some images of some situations we've seen in this community in the past.

Society chapter since its inception and has served as a chapter director for many years. In addition to being a highly skilled technology professional, he is also known for his in-depth analysis and columnist, always focusing on current topics. The topic of multilingualism and multiculturalism is a topic that has been of great interest to you, Mauro, so what can you share with us?

Mauro D. Ríos (ISOC UY): Well, thank you. Thank you all for coming to this event. First of all, well, I'm honored by all the colleagues who are sharing with me. I've

known them all for many years. We're old hands at this, and it's always a pleasure to share a panel with them.

As for languages, we'll start from the perspective of languages. There's always a debate about which is the most spoken language and whether English is the universal language and whether it isn't. It represents less than 25% of the content on the Internet. Spanish is third, of course, there's English, Mandarin Chinese—correct me, professor, Mandarin Chinese—and then we come in. So, Spanish and Castilian, because we generally associate the two languages together, the two languages together. Language, not language, right, professor? Also in a correction, I've already learned that, it's language, not language.

This means that we have a global power, not only in Spanish-speaking countries but also in non-Spanish-speaking countries, where Spanish or Castilian is used as a secondary language. English is officially recognized as a primary language in 58 countries, and Spanish is used as an official language in only about 30 countries, not as a primary language but as a secondary language. This means that we have a significant power within the Spanish-speaking world, and particularly in Latin America.

But what's going on? We're also one of the continents or latitudes with the greatest diversity of languages. And that's where the issue of access to the different technical possibilities represented by those languages begins to play a very serious role. Among the languages of our continents, we have the least spoken languages in the world. There's one language—I don't remember a single person speaking it in Peru, right, Professor? That language is incredible. I don't remember the name, but it's the least spoken language in the world, even if it's spoken by a single person, proven.

In 2005-2006, while working for the Canadian government, I participated in a portal in Argentina called Polmapu. It was a portal completely translated into Mapuche, and it was a very wonderful experience. It had little support and quickly disappeared. These initiatives have been sporadic over the years, with various forms of support. They're generally pilot projects, generally very successful, very good experiences, but limited and confined to a specific project.

As we've seen over the years, these projects often receive funding. The project is created, the funding is withdrawn, the project is not appropriated, and it quickly disappears. And we're also mired in that reality with universal access or the universalization of access to language.

Regarding Spanish, we've been fighting for a long time about the EÑE (Spanish alphabet) and we've managed to recognize it. One of the problems we have to keep in mind, and we're very aware of this at ISOB, is something we said in the workshops, and that is that here, from an infrastructure perspective, it's not enough to add infrastructure that recognizes or allows for the recognition of domains in different languages and emails in different languages. Rather, it has to be the chain.

And that's a huge problem, because as we said today in the workshops, if a server, if an escalation in an email path doesn't have this recognition, then the email dies. And that's a serious problem, because it's not about adding numbers, but rather about adding infrastructures throughout the entire chain. Because one in the chain that doesn't have this recognition ruins all the effort we've made to convince, so to speak, to convince providers and others to incorporate these configurations into their technological infrastructures.

And that's a big problem, because we're facing a challenge that's not simply numerical, but rather, we have to engage the entire value chain in that transmission and sharing of information, both in email and in the area of domains and DNS.

I think these initiatives are extremely valuable because they raise awareness about the issue. That word is used a lot; we're raising awareness about the issue. The key is not to stay here, the key is not to stay here, not to stay here, obviously from the perspective of AGESID, obviously from the perspective of SESIO, and from all the organizations that have managed to get involved in this. Because this is a major obstacle; if one fails, it brings down the entire chain. It's a technical problem for which we have no solution.

Now, what initiative can we take? Also today in the workshops, we mentioned something that almost went unnoticed but is fundamental. Technologically, for five or six years now, all the infrastructure purchased for what could be a data center, web servers, email servers, has been capable of recognizing domains, both in email and domains, DNS, in any language. The problem is configuration.

And there in the configuration, and we suffer a lot from this in Uruguay, we've even seen servers where the domain can't be accessed if I don't put the three double characters in front of them, for example. And the configuration issue. To say something so silly, it's simply a switch that I turn on or off. This also happens the same way.

If the technology is available, why don't we enforce some kind of requirement, let's say, that when a server is set up, it has this capability? Especially for us, coming from a language that isn't the most powerful in the world, nor the most universally recognized for communication, relationships, or interrelations. So we have to think about that.

I mean, as Fabricio said today, this should be resolved from the design perspective. And we're not working along those lines. And I think that's a line that could be very good to address. From the design perspective, working on how this should be configured this way. And there, obviously, those who are, for example, in Daniel's case, have roles to play from a policy and regulatory perspective, with that obligation.

At least in certain areas where the technology is available, well, it just needs to be configured. Just as we talk about information security policy and so many other things, and now we're dealing with the whole issue of minority protection and so on, this is something that also contributes to the issue of culture and the eradication of culture in our latitudes.

Moderator (Raúl Echeberría) : Thank you very much, Mauro. They say he who has the microphone has the power. So, since you have the microphone and want to change the order, let's make it more fun. You've also written a lot about artificial intelligence in your columns lately. What role do you see for artificial intelligence in improving cultural or linguistic diversity on the Internet?

Mauro D. Ríos (ISOC UY): I believe that the guide, especially now that we're in the age of agents, can contribute to this line of work I've been suggesting. I think it can help us automate things that currently require a strong will. If I approach this from the perspective of artificial intelligence, doing it automatically, can help me a lot in, let's say, setting up a technological infrastructure that already has these forecasts configured and resolved.

The other thing, of course, we can use the guide to identify or map the current scenario. Today in the workshops, we talked a lot about tools that allow me to know if my email server is within the scope of universality or a DNS, and so on. But they're all manual tools, they're all tools I have to run, they're all tools I have to access.

Why don't we use an AI agent and do a mapping, for example, not just at the country level, but at the regional level? And obviously, we're investing in institutions

like LACNIC, for example, or any other NIC. And well, we're going to do a mapping, we're going to use an AI spider to do a survey to see how we're really doing, right? And we don't have to go through the effort of manually figuring it out, like, María, one by one, to see if the domains are capable of recognizing different languages or not and are prepared for that.

Well, AI can help us with that. And then, once we're clear on that, it can also help us automate these processes for configuration and testing, always obviously addressing the issue of cybersecurity, right?

Moderator (Raúl Echeberría): Excellent, thank you very much. And the other person with the microphone is Mariela, so

Mariela de León (SeCIU - UDELAR): Well, we saw complementary perspectives from different perspectives within the community. Do you think more work is needed to promote local content? Do you think SeCIUS can play a role as part of the ecosystem in this type of entrepreneurship? How do you see the impact on the Internet ?

Yes, I think that, as administrator of Point I, SeCIUS can even suggest, when someone registers a domain, different possible domains that include something local. For example, if we register it without an accent, perhaps I can suggest they register it with an accent. Or perhaps if they add it, I can deduce that it includes an ñ. I can also suggest the possibility of moving toward the acceptance of local names. That could be a simple, relatively easy way to contribute to that.

But we also need to promote policies within the university. Or rather, policies or guidelines to present the topic as a topic to work on. It's like being able to say, well, when we build systems or when we propose websites or university websites, we should address the topic of accessibility. Acceptability, sorry. Accessibility too. But acceptability too.

It's like a logo or a presence that shows that we have a site with a certain field or form in which this is translated, that we can accept these characters. We have a balance, and one problem we have is this acceptability versus security as well. Putting all these characters in the fields is where we IT people start, well, but we have to control the characters in the fields. The application firewall policy. And we start in a twist where we get a bit tangled up.

But well, for example, the university's international relations site, the thesis repositories, or the event sites are what I'm referring to as the closest sites. And that's where it's at: starting to work on the issue internally and presenting it in the domain registration system this way as well. I think we can tentatively start there.

Moderator (Raúl Echeberría): Great. I'm tempted, forgive me, but I have to ask one more question. You manage the dot UI and some of the subdomains, but there's an important part that Antel manages, which is the dot com , dot UI. So, the first question, question 2A, would be whether there's any kind of coordination in that sense. But there has also been in the past, well, I don't know if Daniel has had time to get the Wi - Fi key from AGESIC, but because we're asking him for a lot of things and he just arrived, but there are possibilities for coordination also on how to use these, Sesio or Antel, the DNS registry as well as aligned with the implementation of public policies.

Mariela de León (SeCIU - UDELAR): Let's see, I don't know if I understood correctly, but Antel also registers domains with IDNs. In other words, all accredited registrars in Uruguay can register with IDNs. There are only a few, as I said, there are 534. We registered some of them ex officio to guarantee domain ownership when we launched in 2016.

And in general, the policies for domain management are proposed by the University of the Republic, but all the stakeholders, all the registrars, gather around one table. There's AGESIC, which is now the government's registrar. There's Antel, because it registers dot-coms. And there are the registrars we have, which are companies with which they are licensed. And there's the University of the Republic, which is also SESIO .

So, I think that makes it rich because when you define the administration or the policies of the UI point administration, you're listening to several actors. Civil society is missing, perhaps. But we have all the internet stakeholders at the table, and I think that's what has, let's say, in the world of CCTLDs; they've taken us as an example when defining our policies.

Moderator (Raúl Echeberría): Excellent, thank you very much. You answered exactly what I was asking.

Laureana , we're here. Well, you've already left some doors open for further conversation with you. What's the intersection? Where does this topic of translation and technology converge? And what's the way forward?

I also raised the question a bit, as a second part of the question, is that we're seeing increasingly powerful simultaneous translation services, even preserving the voices of the people speaking. Does that contribute to the preservation of the original languages, or on the contrary, does it make them invisible? I don't know. I'll leave you there.

Laureana Pavón (University of Montevideo): Well, let's see, as a translator I have always advocated, I and all my colleagues have advocated that people should be able to express themselves in their native language, in their mother tongue, which is the best way to build their knowledge.

Now, with this emergence of machine translation technologies, they are absolutely welcome. They are helping to massify knowledge and making it available to people who would otherwise never have the opportunity to access the knowledge they currently possess.

But that comes from being a teacher myself. I, too, would like to say that it's not enough to simply provide them, to make the tools available, but rather the importance of literacy. Because technology without literacy in its use or in the risks it can entail can be serious.

So, it seems to me that the way forward is undoubtedly, this is very welcome technology in translation, but it should be accompanied by some literacy in its use to counteract risks such as biases that may be in the training of artificial intelligence or machine translation models or technical defects that may appear and that, I don't know, artificial intelligence, for example, can hallucinate when translating and produce results that are extremely, one, the laws are extremely bad, coherent but fallacious and that can lead to serious risks in cases such as what I am going to say, such as emergencies, information that there is, let's say, that the user does not know that it may not be correct would be a serious thing, but I think that the future is going to be machine translation or artificial intelligence hand in hand with literacy and support by human beings.

Moderator (Raúl Echeberría): I love your positive outlook on technological evolution. I wish other sectors had the same vision in the face of technological disruption. Fabricio, you spoke to us about the specific case of OpenStreetMap, but also about the potential impact of diverse cultural representation on climate emergencies, which could also be applied to other types of emergencies. As I mentioned in the presentation, you've worked a lot in civil society in different roles.

What do you think the role of civil society could be in pushing for greater representation of local cultures on a global internet?

Fabricio Scrollini (HOTOSM): Yes, I think that civil society, independently, one calls it civil society, well, what is civil society, right? I mean, there's this constant doubt, saying, well, how does civil society dress, how does it eat, what does it eat? Well, the technical community, one more or less says who they are, the governments more or less have a representation and variety. What is civil society? And generally, civil society is those people who said, in the case of the internet, when the internet emerged, well, I have an interest and I do it because I can.

I mean, when, for example, the person who founded OpenStreetMap went to ask the British government for a map of his neighborhood, basically, the British government said, no, because this is our property. Great, you're not going to give it to me. You know what? I'll map it. And besides mapping it, I'm going to get 100 more behind me who are going to do the same thing all over England. And not content with that, we're going to have to go online. There are 500 more behind me who are going to do it all over the world. And now there are 600,000. Why can I? Because it's the right thing to do.

Because civil society generally focuses on a place that is, in some sense, normative. Wikipedia exists, why? Because knowledge must be free and accessible to all. It's simple; it's the right thing to do, let's say, right? The thing is, of course, civil society isn't just about causes that are so noble, pure, and pristine —there's something for everyone. But in general, what I'm saying here is that civil society is the sounding board for what, in some way, society is demanding, for those common goods that often fall through the cracks in the system.

Because in this multi-stakeholder model, it works as long as each person defends their own interests, but the question is, well, who thinks a little more about the collective need? And civil society often has a role to play there, right? And we often see—and I think it's part of it—a bit of what we do, for example, when our technology, today the most concrete example of tasking Manager, is recognized as a global digital public good, within the agenda that leads the United Nations for this. Why do we do it? Why are we good at it? Well, we get paid for this, we get donors, we make an effort, we pass the hat, so to speak, in various places, but we built it because there's no other technology that allows people to map freely. There isn't. What there are are basically concentrated private monopolies that prevent people from accessing geographic information, that's what there is. That's the flip side.

It is our view basically to also enable a public good solution because because in addition they are not good because we are against private monopolies not necessarily because we believe that everyone has to have access you when Wikipedia emerges you are against the Encyclopedia Britannica do you think it is a horrible thing that exists of Encyclopedia Britannica no but well we believe that basically free and open knowledge has other advantages that maybe the Encyclopedia Britannica did not have, among which the Encyclopedia Britannica continues to have, or the one that was there until now, in its last stage I don't know, it was a very good edition, let's say, that also existed, it is not that the wisdom of the masses varies with everything, I mean, there is a balance in all this.

So, I think that's where the axis of civil society in general lies in all these debates. In the specific case of the Internet, it also lies in making those who are not visible visible. I mean, today, on the Internet, let's say, and particularly in certain areas, there are very few actors. And this has to do with the evolution of technology, the evolution of capital, and the evolution of users who demand more and more things. Everything has to be now, and everything has to be compatible with the iPhone. In this race that exists today on the Internet, there are a lot of people who are left behind, and those voices generally go unheard. I think there's a role for civil society to play.

And naturally, what my colleagues were also saying, Mauro was saying, I think there's also a question about you basically, in the sense that every person is, at heart, a citizen. You don't get up in the morning and say, "I'm an aseptic being," or "I put on the shirt of the government or the private sector and say no, I'm for my company." I don't care where I live, I don't care how things work. I don't care how things work. I don't care how the bus works, I don't care if I see someone lying in the street, I don't care. I don't believe, in general, unless you are very special beings, that you don't care. I think you care.

You are small chains, small links in a large chain to make this work. And you have power. You can configure those servers, you can enable free technologies, you can ensure that certain technological decisions are inclusive or not. The question is, right? The question is, right? The question is, what role are you going to take? Because you are also, in a way, civil society.

Moderator (Raúl Echeberría): Thank you very much, Fabricio. You mentioned inclusion many times, and that brings me to the last intervention of the panel, Daniel Mordecki. Daniel, you made some statements. Which of course they are, I really salute them, and they're strong, aren't they? Inclusion without concessions,

100% inclusion. Minimal barriers, these are truly postulates that generate a lot of excitement. So, how do you think AGESIC is, how do you see it, a little more down-to-earth, what might AGESIC's plans be to achieve these goals you mentioned?

Daniel Mordecki (AGESIC): Well, we weren't on topic. Well, you brought it. No, I'm happy to. I'm just clarifying: Can I pass on a nerdy warning? I don't know the solution; I don't know the technical side. Please, don't let it be like encoding, which isn't reversible. I urge you, encoding is poison. Please, don't let it be like encoding. There you go, I've closed my nerdy request.

Let's see, we established some pillars that have to do with... Obviously, this is a goal. We're planning to build a digital strategy for the next 20 years. How do you build it? Nobody has the slightest idea. It's not... Because when you say that, the first response is to say, these are pedants. I mean, this is a world that's changing digitally very quickly.

I mean, one of the characteristics of history is that if you go back to the Middle Ages, the probability that children would use the same tools under the same economic and social conditions as their parents was practically 1. Today, the probability that your children will use the same tools as you is almost zero. I gave a talk at a school the other day; children don't know what a calculator is. They don't know what it is. I think it's fantastic, right? I mean, the shock for me is, you're so old, aren't you? But if you look at it in historical terms, yes, it's a characteristic.

So, what you have to do to plan a 20-year strategy is determine what things you can say are invariant. In other words, what things you can be sure will remain there. And one of them is this issue of inclusion. Because it's a problem that, if you look back, the discussion about technological introduction is a discussion about inclusion. As long as the technology being introduced involves it—and you can look at reading and writing and history and progress, to take that as an example—then access to digital technology is invariant, meaning, in 20 years, the probability that it will continue to be a problem is almost disastrous. It's a fact, it's extremely high.

So, along those lines, what are the things that need to be anticipated? Well, the first is to use the impact on people as your decision-maker for resource allocation. In other words, everyone who faces, let's say, the decision to manage—someone actually once said that you start managing the day you say no. I mean, if you go out on the street, a good manager is someone who makes good decisions about what to do. Actually, that's not it. For me, it's not a good definition. It's someone who

says no. I mean, resources, regardless of who you are, are always scarcer than opportunities and problems.

And one of the measures is to use the impact on people to allocate resources. In this world where multilateral lending organizations, organized civil society, chambers of commerce, etc., all demand that you take action and participate, it's quite easy for a private institution to get out. For a public institution, you have to be in all the forums, in all the standards, in all of them. You're not going to be in all of them. You're not going to be in all of them. You have to decide which ones you're definitely not going to be in, which ones you're going to pretend you're there, but in reality you're not, and which ones you're really going to put your weight behind.

And the deciding factor in that balance is impact. The impact you have on people, fundamentally to include them. Then, in parallel with that, the social, economic, quality of life, security, Uruguay's impact on the world. There you have one of the invariable pillars.

Another has to do with the State and its ability to accept that it's now digital and that digital information flows. It's behind the scenes, and citizens don't have to carry it in their pockets. Let me explain. Sixty years ago, when a public agency wanted to tell another public agency that you met a certain requirement, for example, that you were a small business, they would print you a piece of paper called a certificate. And they would give you a small business certificate at the next counter—sometimes it's inside the agency itself, isn't it? But you go out and at the next counter, then you're the cadet and you grab the paper and take it to the other one.

The digitalization of these 20 years in Uruguay and around the world has replaced paper with a QR code. And so now you might be able to do it from office to office, from browser window to browser window. One thing they still haven't understood is that you can't read your own QR codes on a cell phone. You have to be a guru. You have to be a guru to do that. But that's a usability detail. Remember, I come from the world of user experience, and these things really bother me.

But leaving that detail aside, we need an interoperability process first. That is, conceiving of state applications as interoperable applications. Where the human interface is just another application. That uses resources without any hardcoded privileges. In other words, there's no if, user, equal, equal, Daniel, grant permission, equal, true. That's not there. In other words, there's a general line of work to define what we need to do in the state.

Well, if you know the State, if you work in it, or if you interact with it, you'll understand what it means to convince Mariela, the UTE systems manager, and the LATU systems manager to think of their systems first as interoperability platforms and then as systems for the university, for UTE, and for LATU. It's a problem, that is, it's a balance between collective benefit and individual benefit. This is going to take 20 years.

And the third thing, or the third line, which we were talking about with Raúl, we're now in charge of sharing the stage. I mean, on every stage I'm invited to, he's doing something. But what we were talking about the other day is building leadership for a digital world. We need leaders. When I say leaders, I mean leaders in the broadest sense. Presidents, representatives, senators, ministers, directors of public companies, managers of private companies, marketing managers.

I mean, I'm fed up. I'm fed up with hearing marketing managers repeat that the internet is a digital brochure. That's not the case for the government, right? You go to super-high-flying companies and they say, the internet is like a digital brochure. No, my friend. The internet, the world is digital. Your bank is the internet. Your bank is on the internet. The relationship your customers and citizens have with your bank is practically and exclusively through the internet.

A digital brochure, on paper, stone, or whatever, is something that tells something that happened somewhere else. I have a brochure for a sanatorium. So, there's the sanatorium where the healthcare is provided, and the brochure that reports and tells it. Right? And then you go, but events, 20, 24, 20, 25. The internet is the digital brochure. No, my friend, that advertising, that way of telling things is over. The world is digital.

We need leaders who understand that this discussion, perhaps a bit technical, perhaps in some ways, not one of the core discussions, but the digital discussions, this discussion, the regulatory ones, the coverage ones, the access ones, the market ones, are the decisions that will shape our society in the coming years. They can't just appear in technology. They have to appear on the front page of the newspaper. Journalists, understand.

Look, I'll give you an example. There was a wave of cyberattacks. And I mentioned this to two or three media outlets, and the journalists said, wow! What does a journalist do? A journalist facing a cyberattack? A cybercriminal comes along, who isn't a hacker; there's no such thing as a fantasy. He's a criminal who steals things. He steals intangibles, but he steals, and it costs a lot of money—between \$70,000

and \$150,000 for an incident response, just to start talking about it, not to mention the assets that were lost.

A criminal publishes information on a website. A criminal publishes information on a website. And a journalist takes it and puts it on the front page of his or her outlet in 30 seconds. Where do we live? And the three sources? And the verification of the information? And the fake news ? News ? Do criminals only publish truths? Don't criminals have self-interest? Do criminals have interests that coincide with the public good?

So, in what field of press and journalism is information constructed from a single source, without validation, without analyzing what's more, criminals? In none. So, we need leaders for a digital world. Who understand that when a criminal publishes information, it's probably a third true, a third half true, and a third false. And what they're looking for is for your journalist to reproduce it without analysis. Then you're part of the problem, not the solution.

So journalists tell you, well, the State doesn't clarify. And you look at them and say, since when do journalists reproduce what the State says? Or do they wait for the State to tell them what's true and what's false before publishing? We need digital leadership. I give you these examples from the private sector. We need them in the public sector. But in reality, one thinks, let's say, there's a kind of idea floating around that the private sector is advanced and the public sector is backward. And that idea is essentially false.

If you align them, these are perhaps the central lines. Obviously, some others should be added. This is a quick review. Then you begin to understand how to model a Uruguay that has reached an exemplary level of digitalization and now has the opportunity to take advantage of it.

Moderator (Raúl Echeberría): Thank you very much, Daniel. It really is a lot to think about. My first reaction is to wish you every success in that endeavor. But honestly. Good luck to all. Honestly. No, no, no. I think that's why we're all here, to contribute.

I was thinking about the QR code a few days ago. I had that problem. I had to read my own QR code, and I asked my wife for her cell phone to do the reading. Right? But I think it's a perfect ending. Because everything you talked about about inclusion and... And going back to those expressions of inclusion without concessions and minimal barriers. How can we have inclusion without concessions

and minimal barriers if the lower layers of the Internet don't provide for the capabilities to facilitate those levels of inclusion?

And I think this sort of closes all the more practical and technical aspects we've seen with this higher-level discussion, where we've had completely complementary and enriching perspectives. I think there's time for one or two questions, as the boss shows me here. So if anyone wants to make any comments or questions, one or two. And then we'll close so you can get home early.

Audience Member (Oscar Yudice - ISOC Uruguay): Hello, good afternoon, everyone. I'm Oscar Yudice . I also belong to the ISOC Uruguay chapter. I wanted to ask. In the case of tacos, aren't we raising a question of sovereignty? In the case of tacos, of taquerias. Of course. Now Yes . Now Yeah .

Fabricio Scrollini (HOTOSM): Yes, no. Let's see, yes. It's actually interesting. I gave you an example of the difficulties that often arise in creating the labels that OpenStreetMap uses to assign characteristics to places. These are basically created by people in Hamburg having a coffee in the right place. A good Viennese café or something like that. But in general, the community is much larger now. But many of these discussions continue.

So many of the places that exist today in OpenStreetMap aren't made visible in the way the people who live there require them to be. It's a long discussion about OpenStreetMap . You can go to the OpenStreetMap lists , where there are countless threads where people discuss this.

I don't think there's an immediate solution. But I think the only immediate solution is the diversity of communities of practice around this. And what my colleague was saying here, leadership. I mean, this world increasingly requires leaders who don't only come from the global north. But not because I have anything against my colleagues in the United States. From Europe. Nothing against them. On the contrary. I work with them all day. They're beautiful people. The problem is that, well, they live in a very different reality than ours.

So the story is how we can bring a lot more leadership to the table. To make the Internet more diverse. Or to make businesses or organizations more diverse. In general, OpenStreetMap tries to stay away from issues of sovereignty. Because it's a database of maps of the world. But not an authoritative database. OpenStreetMap tries not to get into those places. Precisely because of the contributory nature of the map. The nature of it, in some ways, that it can be

modified by the community. That doesn't necessarily make it reliable for those kinds of tasks.

Yes, it has been used more. It continues to be used. And it's interesting. In census tasks. Also, potentially even in land registry tasks in some countries. Where there's often not enough investment or enough data. And so governments sometimes adopt OpenStreetMap as their base. Right? This is something you'd say, no, it's crazy. Well, it is crazy. Or not. If you're in Belize and you don't have a budget, it stops being crazy. It starts being what you have available. Right?

Moderator (Raúl Echeberría): Very well. Thank you. Mauricio.

Audience Member (Nicolás): I have a comment bar question. Let's get this out of the way. First, the comment. And a bit in line with what Daniel just said. It seems to me that this thing about generation. I was thinking about the generation of leaders. And one of the things that, at least I see personally, is that of those who lead the processes. Of application generation, for example. Right? The application generation process. The analysts. Those who programme. But more than that. Those who lead the projects. Or those who lead the organizations. That develop applications. Right? At any level. Whether public or private.

It's a monstrous process. Developing an app. It doesn't seem like it. But it is a monstrous process. It involves a ton of considerations. Right? And at a certain point, there are decisions that seem minimal. I mean, they're small things. So I wonder if at some point, for example, when the design is done, it's said, "Okay, this. This form has to support an accent ." Right? That seems like a minor thing. Because of all the monster of things you have to do. Maybe you check that. Okay, okay. Okay.

And in the end. In my experience too. Many times. It ends up being at the discretion of the person executing that part of the programming. Let's say. If I just happen to use a library that supports accents. Fantastic. And if not. Fine. And then. Fine. Everything that comes after. All the testing systems . Pre-production. Etc. Etc. Whether they test that or not. I mean. It kind of gives me the feeling. That there's still. A lot to do. To incorporate that idea into the processes. Let's say. Right?

And then. The question is. For example. At the level of. Of. Of the demands. Internal. Of organizations. Of the State. For example. Or of private organizations. In their internal processes. If it can't. Be. Done. A. Work. Of. Of. Of. Like an overflow. Of all this. And of raising awareness. And well. It has to be part of the process. If it's

not written. If it's not part of the process. Hardly. Afterwards. It can. It can be executed. In a way. Who wants to take it?

Daniel Mordecki (AGESIC): Okay. Okay. This. Hello. Sometimes it works. Oh, no. It's fine. It's fine. I'm not going to complain. Yes. Always. But it has a problem. And that is. They turn on the. I mean. Usability. It's this. I mean. Green. Red. Traffic light. Right? Green. Red. So. I turn on. And the Germans didn't invent the traffic light, are you sure? Look, they invented cars, probably everything the other way around. I thought it was the French, but anyway.

actually two parts: the high-level and the technical. The technical. I answered this from my other answer. Uruguay as a country practically has no mature design processes except in some established multinationals. That is, systems are designed worldwide before the first line of code is written, and in Uruguay, programmers design them. After 20 years of working in design, you work, sometimes you even get a nudge, and you're left with the thing: now we're going to do what we want, and they do it.

So there you have a problem in the industry: the worst in school are us computer scientists who believe that design is a matter of goodwill and good taste. Not only is it not, but I'm also going to tell you that computer scientists don't have much goodwill to do what they don't want to do, much less good taste. But even if they had that, it wouldn't be enough. That's a discussion I love. We talk at the leadership level.

What you have to understand is that if your forms don't work, it's your responsibility. It's your responsibility, and you have to bend the policy. In other words, leadership for a digital world isn't leaders who know how to program, they're not leaders who understand the difference between Java and JavaScript, or the difference between plain TCP and TCP/IP. I that I don't know her.

So, what you need are leaders who understand that unity, let's say, that the execution of policies is essential, and that your means of executing them is technology, and that you have to direct it in the direction it needs to go. You have to seek advice, you have to ask questions, and you have to understand. But you can't say, "Oh, I don't understand anything about this, I trust you." You've been in meetings a million times. "Oh, I don't understand anything about this. You're going to make the best decisions."

You're not going to make the best decisions. I'm going to make the best decisions here. Because this organization, whether public or private, appointed me to make them. And the day I can't make them, I'm going to tell my boss or Parliament, I'm going to resign, and I'm going to let someone else make the decisions. That's the problem. I mean, when forms don't accept accent marks, it's my problem. The day we understand that, we'll have leaders.

Obviously, the solution isn't for me to write the forms. The solution is for me to understand, get involved, and learn how the forms are made. I ask questions, get informed, have them explain to me, demand that they explain it to me at my level, and make the decisions. Well, it comes up so much: we have to change this, we have to redo that, this server, this thing. Okay, we do it or we don't, let's do it, prioritize, and do it. That day we will have leadership for a digital world.

Moderator (Raúl Echeberría): Thank you very much, Daniel. Mauro, did you want to add anything? It's a sign that we need to finish. It's more planned. It's not that difficult.

Mauro D. Ríos (ISOC UY): You said something very interesting, and I agree with what Daniel said, which is absolutely right. Design comes before even touching a coding key. I'm going to do the same thing Daniel did. I'm going to talk about my other life. Until 2023, I was the Technology Director for the entire ANEP. We're working, for example, on one of the largest platforms. And I have Mariela here, and we've worked together a lot. A larger platform, which is what's called the teaching portfolio, which is like EGURY for secondary education.

After understanding why, during the pandemic, while working remotely, it was falling apart, and after 26 of my programmers reviewed the code, which is monstrously large and complex, they discovered the code where the programmer had included an automatic reset of the servers because they knew it was falling apart, only to clean it up and restart. The cost of that is brutal. The cost it carried was brutal, and it wasn't because it's a design problem. A design problem.

And speaking of leadership and what Daniel said, and I reaffirm what I said about leadership control, I'm going to tell you an anecdote I experienced with Mariela, which is a failure of the university. Ten years ago, ANEP and the university tried to communicate electronically. Three working groups failed. They were working simultaneously. One day, both the authorities of one university and those of ANEP said, "No more." And they passed the buck to the two of us. What took Mariela? Three months to solve the problem.

Do you know what we did with Mariela? We resolved something historic in Uruguay: kids have to go to a secondary school to get the damn Form 69. Now, ANEP automatically notifies the university about graduation, orientation, the programs they took, how many courses they owe, how much they owe us. It took us three months to resolve it. There was a total failure of leadership in three groups for more than 10, 15 years. That's the problem we're having and what Daniel is somewhat raising. We need to build leadership that understands that Uruguay is digital. That they understand that Uruguay is digital.

Moderator (Raúl Echeberría): Thank you very much. Mariela, Laureana , Fabricio, any final thoughts?

Mariela de León (SeCIU - UDELAR): Well, I just want to thank you. This panel has really been very entertaining, and that's what the Internet Society chapter is all about : creating a space to discuss and exchange opinions on various topics, as we've done in other areas. Security, child protection, and other topics. So, thank you very much to the panelists. I ask for a round of applause .
